



## *Renewables:*

### **Wind Energy and the Federal Government**

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## UPC Wind Partners LLC

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- A world leader in wind energy production
- Expertise in wind resource analysis, turbine sighting, and project design
- World's largest wind farm project financing
- Experienced construction management
- 98.5% availability over six years



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# Recipe for Successful Wind Energy Development

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- **Excellent wind resource with long term data**
- **Land needs to be permitable and developable**
- **Reliable wind turbine technology**
- **Capable EPC and BOP Contractors**
- **Cost effective Operations and Maintenance**
- **Transmission inter-connection and access**
- **Credit worthy power purchaser**
- **Successful financing, debt and equity**

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## Responding to the Changing World of Restructured Energy

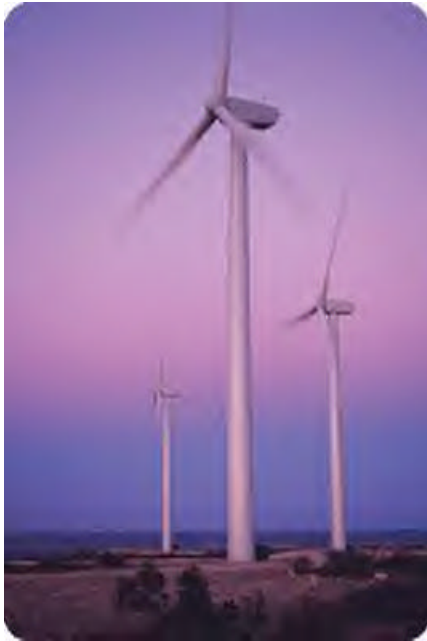
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- How do you get involved in buying renewables?
- How involved do you get?
- Budget effects do to power market price fluctuations, dam water shortage
- Open access issues, transmission, RTOs
- Retail and wholesale power marketing
- Decisions on supply mix from various sources, for various terms





## Have the Desire – No Mechanism



- **Executive Order 13123**
- **Need for energy diversity in supply and environmental sensitivity**
- **Wind energy has price and supply stability**
- **Resource is indigenous and renewable**
- **Provides energy supply security,**
- **No fuel price risk, no water demand**
- **Diversifies national economy**

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## The way it's been

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- **Historically only small specialized projects**
- **Not military's mission to concentrate on energy**
- **Interference with training operations, and safety**
- **Always received favorable pricing and transmission access**
- **Receive limited power allocation from WAPA**
- **Limited on site resource development potential**



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## Where are the Opportunities for Wind Energy ?

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**Federal lands developed by: Private developers, Utilities, Army Corp Engineers,**

**Develop on Military Bases, buy direct sell excess. Done thru Fed funding or RFP for PPA**

**Purchase Green Tags only , no premium?**

**Utilize, in place Federal initiatives, Wind Power America, Farm Bill, Energy Bill, desired increased use of BLM lands**

**Enter into long term contracts with WAPA, BPA to increase their available hydro allocation by blending available hydro and new wind**







## An Example: Edwards Air Force Base

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**RFP for 100% Green Power, firm**

**Enron combined the WAPA allocation with a mix of available biomasse, then wind, and filled in ancillary services by SCE to create 5 year PPA**

**WAPA supplied 88GWhrs/yr Enron supplied firm blocks 133GWhrs/yr and SCE covers balance thru ancillary services**

**Result SAVINGS OF \$42,000,000.**



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# How To Get To the Finish Line

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## Sticking Points:

**WAPA no growth responsibility**

**No available funding or appropriation**

**Requires support from leadership to give authority**

## An answer:

**GSA, military, requests 2000MW of wind power from WAPA via allocation to blend with hydro**

**WAPA has authority to procure on behalf of DOD through inter-agency agreements**

**WAPA absorbs large wind energy into system at various locations**



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